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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO.       |
|---|-------------|----------------------|--------------------------------|------------------------|
| 10/579,692  | 05/16/2006  | Helmut Lenz          | 11371-119                      | 9638                   |
| 757 7590 09/19/2007<br>BRINKS HOFER GILSON & LIONE<br>P.O. BOX 10395<br>CHICAGO, IL 60610 |             |                      | EXAMINER<br>FETZNER, TIFFANY A |                        |
|   |             |                      | ART UNIT<br>2859               | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>09/19/2007        | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/579,692

Applicant(s)

LENZ, HELMUT

Examiner

Tiffany A. Fetzner

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 5/16/2006 & 8/04/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/16/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED Final ACTION**

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Drawings***

2. The drawing corrections submitted with the June 29<sup>th</sup> 2007 amendment and response are approved by the examiner

#### ***Claim Objections***

3. **Claim 13** is still objected to because applicant has used the phrase "adapted to" without providing **what the adaptation is** that has been performed on the compensation device. When no adaptation has been performed, the correct terminology for this type of situation is "configured to" because it is an unmodified component, which is being referenced with respect to its purpose, and a specific "adaptation" is not required. The examiner suggests replacing the word "adapted" with "configured".

#### ***Response to Arguments***

4. Applicant's arguments filed **6/29/2007** have been fully considered but they are not persuasive. Applicant argues that the examiner has neither in the description nor the figures identified clearly the "energy source" or the "second parameter value", in pages 7 and 8 of the June 29<sup>th</sup> 2007 amendment and response. Additionally applicant has requested further clarification of these items by the examiner. The examiner has clarified that the circuitry components which provide an electrical input to the output stage 6 function as the "electrical energy source" over which a current of either positive or negative polarity is provided to the input of the output stage 6 as an electrical energy source. Additionally it has been further clarified that the first parameter value is the "actual value", shown as component 3 in figures 1 and 2, while the "reference value" of the voltage or current load, is shown as component 2 in figures 1 and 2, and is the 2<sup>nd</sup> parameter value. Because all of the parameters set forth in the claims are clearly taught and shown by the reference, applicant's arguments that not all the claim limitations have been set forth is not persuasive.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Amended Claims 13-26 are Finally rejected under 35 U.S.C. 102(b)** as being anticipated by **Lenz** US patent **6,448,775 B1** issued **September 10<sup>th</sup> 2002**, filed December 9<sup>th</sup> 1999.

7. With respect to gradient amplifier (**Amended claim 13**), corresponding MR gradient amplifier system (**Amended claim 23**), and corresponding MR gradient amplifier method (**Amended claim 24**), **Lenz** teaches and shows “A gradient amplifier for a magnetic resonance system and a corresponding method of utilization” [See the abstract, col. 1 lines 7-17 and figures 1 through 3], “the amplifier comprising: an output stage” (i.e. component 6 is the output stage)”adapted to connect to an electrical energy source;” [See figure 1 with respect to output stage component 6 and the electrical connections which connect into and out of the output stage 6 at the “o” locations. The reference value 2 which is from an electrical current source is also an input value to the output stage 6] “a compensation device” [See the combination of control loop components 1 and 7, which also comprises the detailed components found within component 1 and shown in detail in figure 2] that is “**adapted configured** to connect to the electrical energy source” (i.e. **the reference value 2**, of figures 1 and 2 which is providing an electrical current and polarity.) “and to measure a first parameter value” (i.e. an actual value of an output supply voltage) “and to output at least one compensation signal” [See figures 1 through 3f] “and a control device” (i.e. See figure 1 modulator component 4, and figure 2 component 15 in combination col. 2 lines 21-32) “wherein the control device accepts the at least one compensation signal as an input, and controls the output stage by a control signal output.” [See figures 1 and 2, col: 1 line 38 through col. 4 line 19.]

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8. With respect to (**Amended claim 14**) and corresponding MR gradient amplifier method (**Amended claim 25**), **Lenz** teaches and shows “a regulation system” [See figure 1 component 4, and adder component 15 in combination with figure 2 components 10 through 22, 5; col. 2 lines 21-32 “connected on an input side to the output stage” [See figures 1 and 2 in combination with one another] “and on an output side “to the control device” (i.e. with respect to adder component 15 and modulator component 4) “and configured to produce a regulator signal (RS);” (i.e. resulting output signal 5) “wherein the regulator signal (RS)” (i.e. resulting output signal 5) “is a function of a second parameter value” (i.e. a reference value of an amplifier output voltage or a reference value of the load current”,. [See figures 1, 2, and 3 in combination with one another, col. 1 line 38 through col. 4 line 19, and the abstract.] The same reasons for rejection, which apply to **Amended claims 13, 24** also apply to **Amended claims 14, 25** and need not be reiterated.

9. With respect to (**Amended claim 15**) **Lenz** shows from figure 1, and the supplied voltages taught throughout the reference that “the energy source” whose actual input value is component 3 is a voltage source, and the first parameter is an input supply voltage”. [See figure 1, col. 1 line 38 through col. 4 line 19, and the abstract.] The same reasons for rejection, which apply to **Amended claim 13** also apply to **Amended claim 15** and need not be reiterated.

10. With respect to (**Amended claim 16**) **Lenz** teaches that “the amplifier is a pulse width modulator.” [See col. 4 lines 9-10, in combination with the abstract and col. 1 lines 7-17.] The same reasons for rejection, which apply to **Amended claim 13** also apply to **Amended claim 16** and need not be reiterated.

11. With respect to (**Amended claim 17**) **Lenz** teaches that “the compensation device” [See the components of figure 2] “is operable to generate a compensation signal that is dependent on the first parameter value and on one of a nominal or a maximal value of the first parameter value.” [See the abstract, col. 1 line 38 through col. 4 line 19, figures 1 and 2] The same reasons for rejection, which apply to **Amended claims 13, 14** also apply to **Amended claim 17** and need not be reiterated.

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12. With respect to (**Amended claim 18**) Lenz shows from figures 1 and 2 that "the compensation device is connected on the output side to the control device or to the regulation system. [See the abstract, col. 1 line 38 through col. 4 line 19, figures 1 and 2] The same reasons for rejection, which apply to **Amended claim 13** also apply to **Amended claim 18** and need not be reiterated.

13. With respect to (**Amended claim 19**) Lenz shows from figures 1 and 2 that "a regulator signal amplification device connected to the regulation system" [See the adjustable amplifiers of figure 2 such as component 20], wherein the compensation device" (i.e. the adder component 15 of figure 2) is connected on the output side thereof to the regulator signal amplification device. [See figure 2, figure 1, the abstract, and col. 1 line 38 through col. 4 line 19.] The same reasons for rejection, which apply to **Amended claims 13, 14** also apply to **Amended claim 19** and need not be reiterated.

14. With respect to (**Amended claim 20**) Lenz teaches from col. 1 line 38 through col. 4 line 19; and shows from the combination of figures 1 and 2 that "the regulator system accepts at least one compensation signal and the regulator signal (RS) is variable as a function of the first parameter value". The same reasons for rejection, which apply to **Amended claims 13, 15** also apply to **Amended claim 20** and need not be reiterated.

15. With respect to (**Amended claim 21**) Lenz shows also that the energy source is a voltage source, and the first parameter is an output supply voltage" The same reasons for rejection, which apply to **Amended claims 13, 14** also apply to **Amended claim 21** and need not be reiterated.

16. With respect to (**Amended claim 22**) and corresponding MR gradient amplifier method (**Amended claim 26**), Lenz teaches and shows from figures 1 through 3, the abstract, and the teachings of col. 1 line 38 through col. 4 line 19; that the second parameter value is an amplifier output voltage or a load current. The same reasons for rejection, which apply to **Amended claims 13, 14, 25** also apply to **Amended claims 22, 26** and need not be reiterated.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

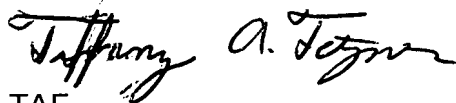
18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is: (571) 272-2241. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached at (571) 272-2245. The **only official fax phone number** for the organization where this application or proceeding is assigned is **(571) 273-8300**.

21. Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TAF

September 13, 2007



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